



MP[®] Reconstruction Prosthesis

cementless & cementable

Presented by:



CE 0123

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	System Description	
02	The Problem Modular Components	
04	Indications/Contraindications	
	Surgical Technique	
04	Preoperative Planning Removal of Prostheses Reaming of Femoral Canal	
06	Impaction of Stem	
08	Preparation of the Metaphyseal Cavity	
09	Trial Reduction	
11	Leg Length and Lateralization, Anteversion, Trial Fixation Screw, Using a longer Trial Neck Segment	
13	Final Assembly: Seating of the Trial Neck Segment, Expansion Bolts, Placing of Prosthesis Head	
15	Stem Removal	
	Accessories	
16	Additional Instruments X-ray Templates Instructions for Cleaning and Maintenance	
17	Thabe Titanium Cerclage Band	
	Literature	
18	MEGASYSTEM-C [®] Medical Reprints	
	Important Information	

■ The Problem

In recent years there has been a sharp increase in the number of cases of femoral-stem loosening involving extensive, generally proximal, femoral defects necessitating stem revision, particularly among younger patients.

In revision hip arthroplasty **clinical experience** has shown that using long cemented stems gives good short to medium-term results in patients with extensive proximal bone loss. However, the use of cement to “plug” bone defects does not encourage positive bone remodeling of the damaged proximal femur. This means the long-term durability of cemented arthroplasty is not optimal. In such cases cementless stems have proved themselves to be a successful alternative.

Porous-coated **cementless femoral stems** have been shown to provide stable distal fixation without impeding bone remodeling in the proximal femur.

However, fully coated one-piece stems are considered to be too stiff in the larger sizes and promote ingrowth that is often associated with difficult removal. In addition, these stems may not always adequately address some of the other issues that can arise when revising hip stems. Problems such as proximal/distal femoral mismatch, leg length discrepancies, anteversion adjustment and stem removal are better addressed by modular hip stems.

The **MP® Reconstruction Prosthesis** is a modular cementless femoral stem for the revision of failed hip stems in cases of extensive proximal bone loss. Modular proximal and distal stem components better address size mismatch. Tapered fluted stems offer less stiffness. The microporous surface, also available with HX® Coating (calcium phosphate), promotes bone ongrowth.

The proximal neck segment can be positioned for optimal anteversion. Leg length can be adjusted with proximal spacers.

■ Modular Components

The **MP®-Reconstruction Prosthesis** consists of the following components:

- **Femoral heads**
 - CoCrMo alloy or aluminum oxide ceramic
 - 28, 32 and 36 mm head diameters with up to 4 head-neck lengths
- **Neck segments**
 - Tilastan® titanium alloy
 - 35 mm and 65 mm
 - Collared/collarless
 - 126° and 135° CCD angle
 - Standard or additional lateral offset
- **Proximal spacers** (optional)
 - CoCrMo alloy
 - Leg length adjustment: 10, 20, 30 mm
- **Stems**
 - Tilastan® titanium alloy
 - 6 stem lengths: 160, 180, 210, 250, 290 and 330 mm
 - 7 diameters: 12, 14, 16, 18, 20, 22.5 and 25 mm
- **Expansion bolts**
 - CoCrMo alloy
 - To secure neck segment, spacer and stem assembly

System Description

Modular Components



Expansion bolts
41+61 mm



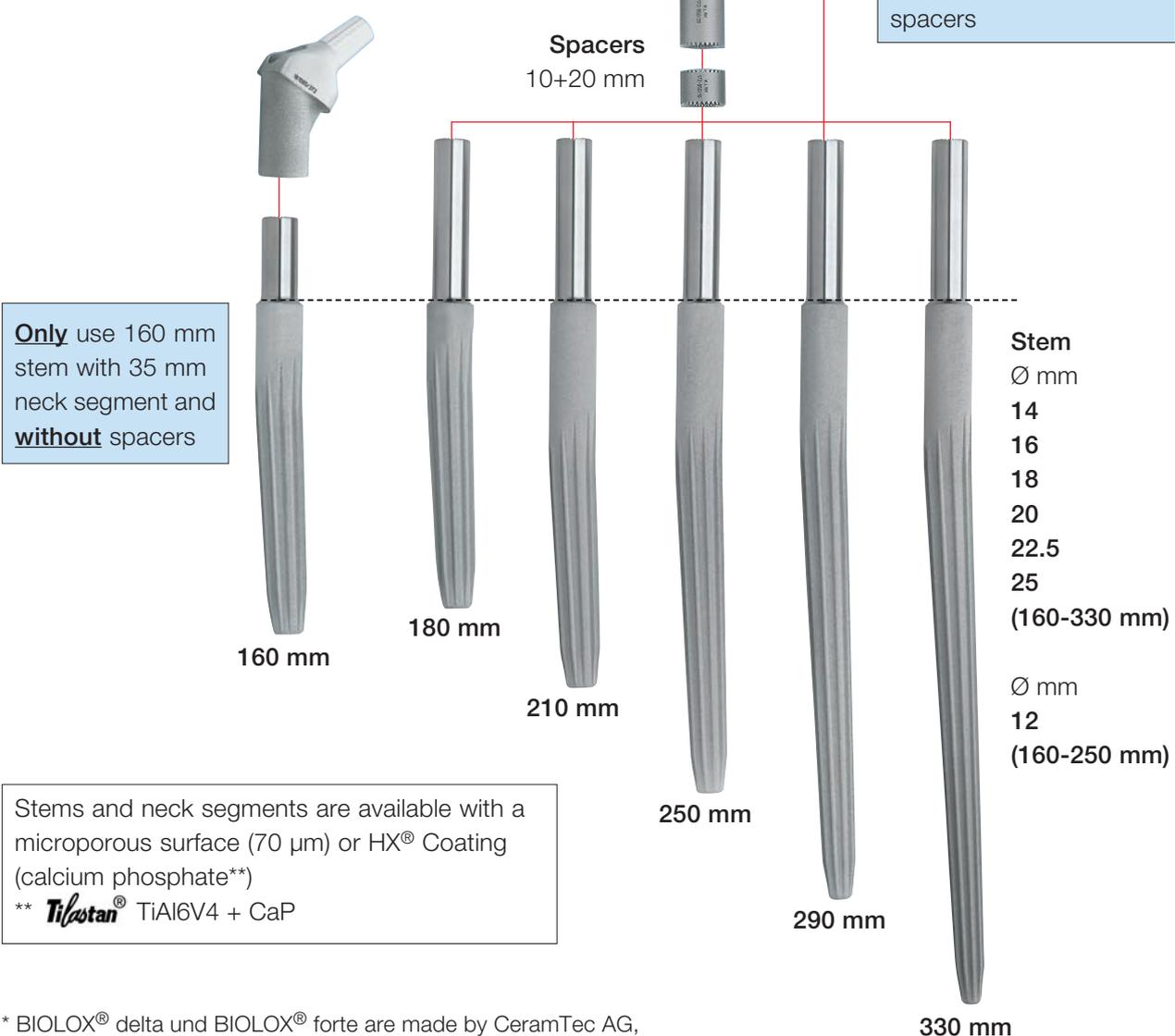
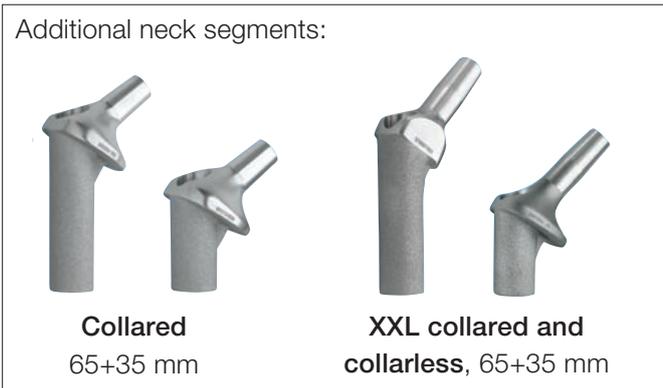
Prosthesis heads A
BIOLOX® forte*
3 head-neck lengths
Ø 28, 32, 36 mm



Prosthesis heads A
BIOLOX® delta*
4 head-neck lengths
Ø 28, 32, 36 mm



Prosthesis heads B
CoCrMo alloy
4 head-neck lengths
Ø 28+32 mm



Only use 160 mm stem with 35 mm neck segment and **without** spacers

Stems and neck segments are available with a microporous surface (70 µm) or HX® Coating (calcium phosphate**)
** **Tifastan**® TiAl6V4 + CaP

* BIOLOX® delta und BIOLOX® forte are made by CeramTec AG, Plochingen, Germany

■ **Indications/Contraindications**

Attention:

For specific indications/contraindications, see page 20.

■ **Preoperative Planning**

It is strongly recommended that precise drawings form the basis for determining the procedure and choosing the correct size of prosthesis.

Preoperative planning should be based on an A/P pelvic X-ray and femur X-rays (A/P and M/L views) with 1.1:1 magnification corresponding to that of the X-ray templates (1.2:1 templates are available on request). The skeletal details are copied from the X-rays onto tracing paper, and the steps of the surgical procedure are determined together with all the measurements involved.

The appropriate prosthesis size is chosen with the aid of the X-ray templates. The templates should be positioned on the X-ray image or the drawing such that both the required distal stem fixation length in the diaphysis and the proximal prosthesis length

required for anatomically correct leg length are obtained.

As a basic rule, the size of prosthesis stem selected should ensure that at least 80 mm of its length is anchored securely within the bone. This means that reaming of the cortex must be included in the planning. The resulting reduction in cortical wall thickness should not be planned to exceed 1.5 mm.

The surgical technique described in this catalogue for the reconstruction of a damaged hip utilizing a MP® Reconstruction Prosthesis represents an idealized surgical situation.

Each revision case is nevertheless unique and the surgeon must decide intraoperatively which method offers the best solution in a given case.

■ **Removal of Prostheses**

The existing femoral stem is explanted. The acetabular component is replaced if necessary. All granular tissue is removed from the joint and the medullary canal. Specimens are collected for bac-

teriology if required. The femoral cavity is cleaned of all remnants of cement and then curetted afresh. The femoral cavity is examined for intactness and continuity.

■ **Reaming of Femoral Canal**

Reaming of the femoral canal starts using a **Reamer (A)** of the same length as the predetermined MP® stem, but 1 to 2 sizes smaller in diameter. This does not apply for 12 and 14 mm diameter stems.

The appropriate depth of reaming is determined by the position of the ring marks on the reamer in relation to a bony anatomic landmark identified during preoperative planning.

The lowest ring mark should be positioned at the level of the original resection of the femoral neck if no spacers are being used (Fig. 6). On the X-ray this landmark can easily be identified and reference

landmarks for the surgical procedure can be chosen.

Rule of thumb: the fourth ring is at about the level of the greater trochanter and the lower ring is about a thumb's width above the lesser trochanter – provided that no spacers are in use.

The reamers should only be inserted into the femoral canal up to the point indicated by the ring mark in relation to the selected landmark.

Proceed with caution when reaming. The reamer should not become warm to the touch. For this reason, hand reaming is recommended.

■ Surgical Technique

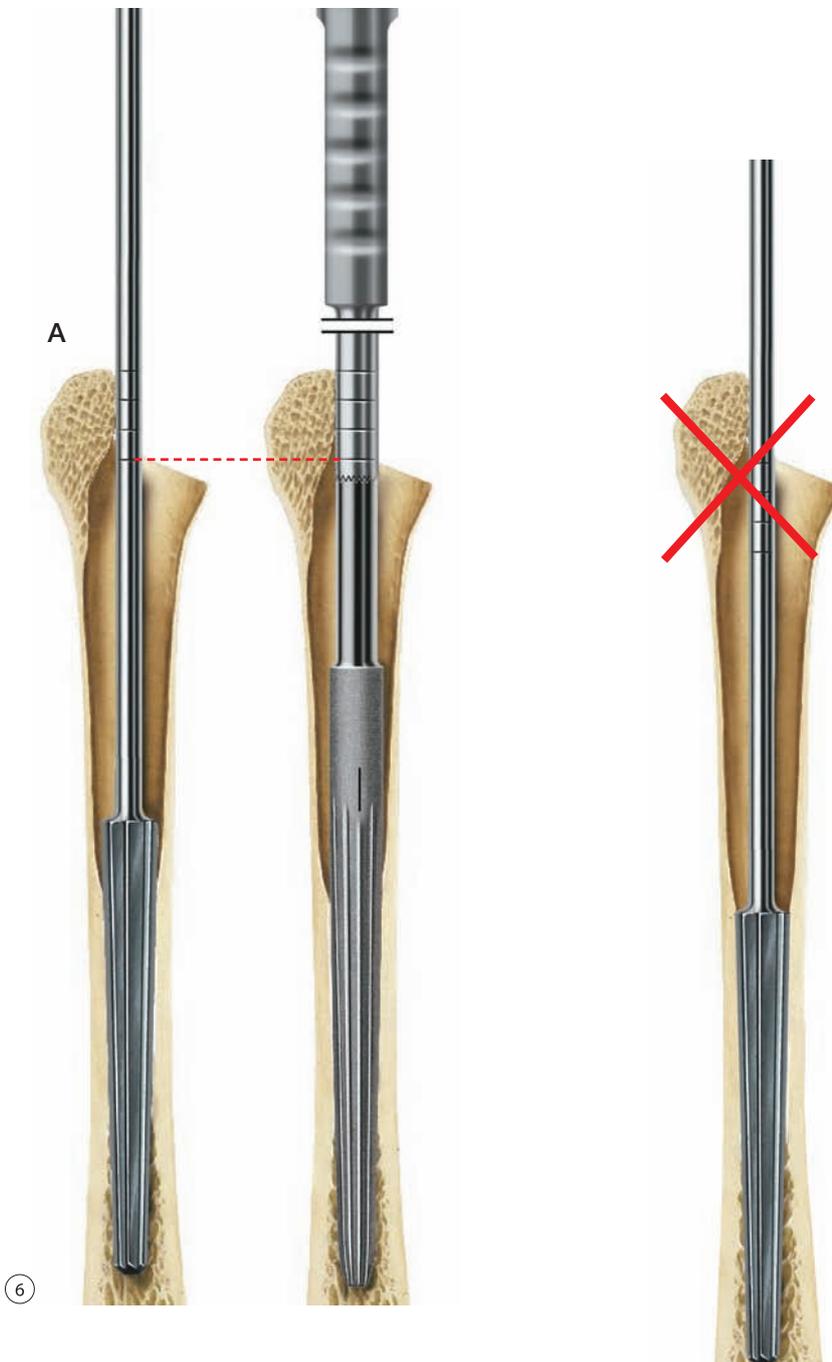
Next the femoral canal is prepared, using the last reamer, until contact is made with the cortical endosteum. Intraoperative radiography can be used to verify that the minimum of 80 mm bone/implant contact surface required for stable fixation has been reached.

Another indication of whether the contact surface is sufficient is provided when the last reamer is care-

fully unscrewed in a clockwise direction. The presence of bone particles on the shaft of the reamer give an indication of the depth of reaming, which in general should be no less than 80 mm.

When implanting cemented stems, a reamer with a diameter 2 mm larger than the stem must be used (i.e. reamer with a 14 mm diameter for a stem of 12 mm diameter).

Reaming depth without Proximal Spacer(s)



■ Impaction of Stem

The **MP® stem** (B) chosen, which corresponds in size to the reamer used last, is screwed firmly to the stem inserter (C) (Fig. 8).

Before impaction, for long stems, the black vertical line on the stem is aligned with the greater trochanter. The **MP® stem** is advanced into the femoral canal as far as possible with slight anterior rotation to align it with the natural curve of the femur (Fig. 9+10).

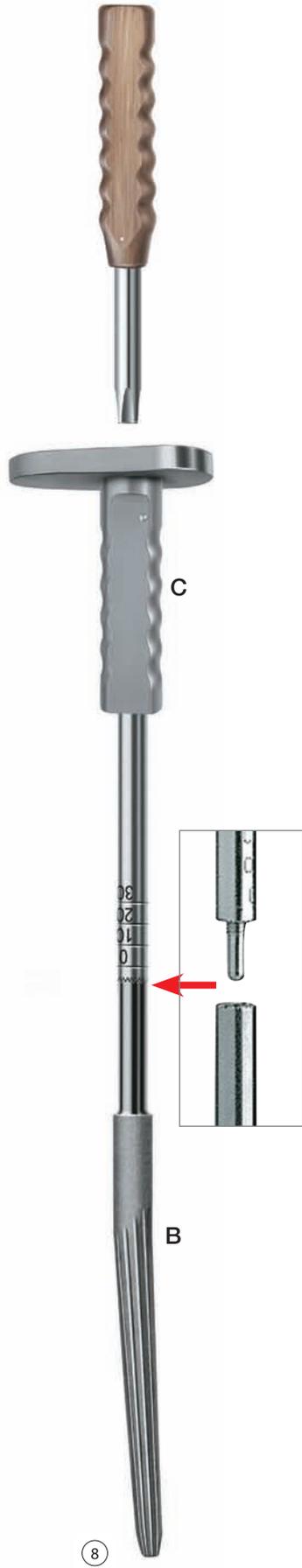
The stem is then carefully driven in further using a 500 g mallet. Proceed with caution to avoid iatrogenic fractures of the femur, which could arise due to hoop stresses.

The **MP® stem should not be impacted deeper than the preplanned level**. If stable anchorage is not achieved at the preplanned level owing to compromised bone quality, the stem can be driven in further and the resulting shortening of the leg can be corrected by up to 30 mm using spacers (10 mm, 20 mm, 20+10 mm). Leg length can be increased using a proximal spacer (see Fig. 7).

Top priority is always to achieve stable fixation of the MP® Stem inside the femoral canal.



Surgical Technique



■ **Preparation of the Metaphyseal Cavity**

If necessary the **tubular reamer (D)** is used to prepare the implant bed for the neck segment (Fig. 12).

To aid placement of the reamer on the seated stem, two drill guides with a stop (E) are available. The length to be used depends on the length of the selected neck segment (Fig. 11):

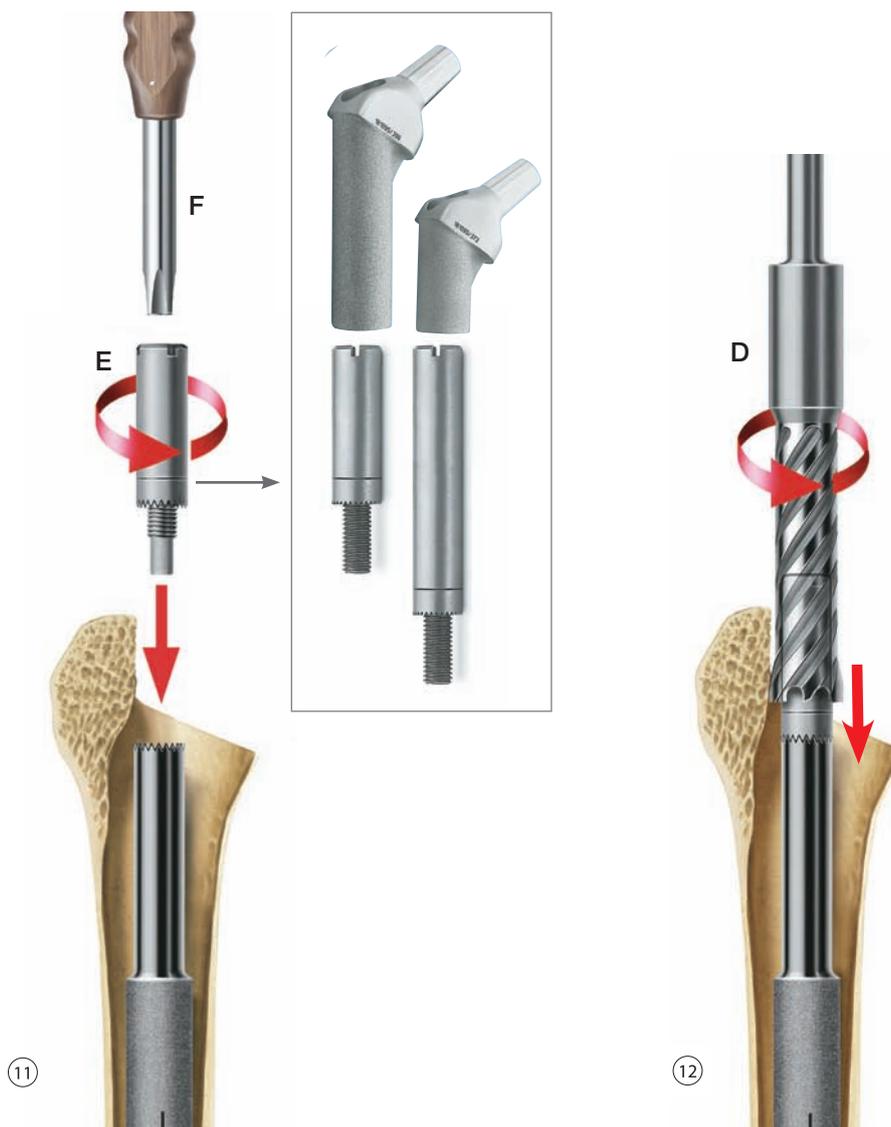
- Short drill guide: for 65 mm neck segment**
- Long drill guide: for 35 mm neck segment**

The teeth of the drill guide are engaged with those on the upper portion of the stem, and the drill guide

is screwed to the stem and tightened with a **cross-slot screwdriver (F)**.

The drill guide with stop (E) doubles as a drill stop to prevent the teeth of the tubular reamer (D) from coming into contact with the rim of the lower stem section.

Irrigation is recommended to avoid thermal damage to the bone.



■ Trial Reduction

The calibrated **guide rod** (G) is screwed into the upper part of the seated stem using a hex screwdriver. The guide rod makes it easier to place the **trial neck segment** (H) – with or without trial spacers (Fig. 13).

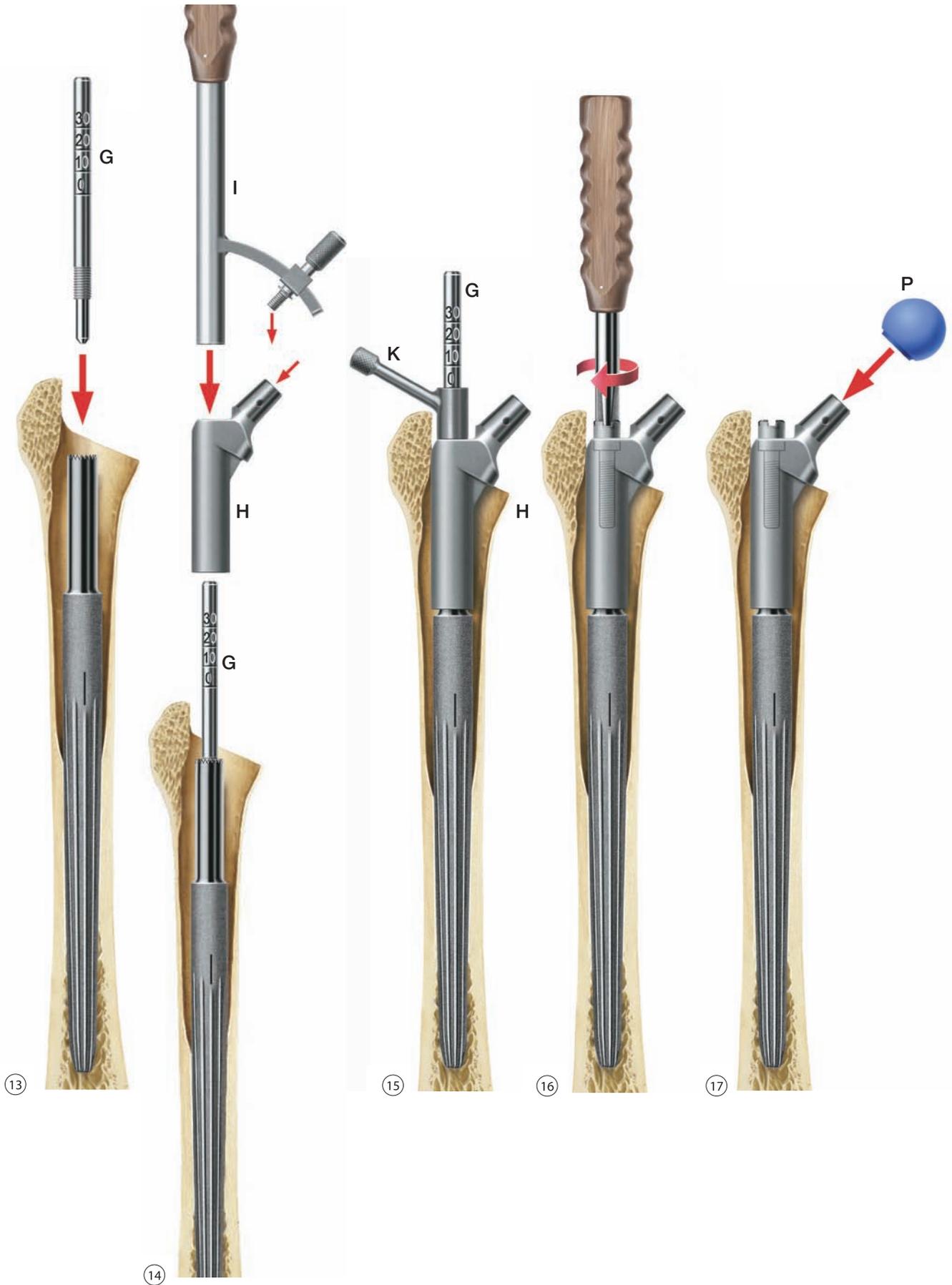
For trial reduction, a **trial neck segment** (H) with a 126° or a 135° CCD angle is mounted on the **inserter** (I) and placed over **guide rod** (G) and onto the stem. It must be ensured that the teeth inside the neck segment engage with the teeth on the upper portion of the stem. This can easily be verified by gently moving the trial neck segment to and fro (Fig. 14).

The firmness of the seating can also be checked by placing the **go/no-go guide** (K) on the **trial neck segment** (H). If no trial spacer was used the connection is firm if the rim of the go/no-go guide is level with the **“0” mark** on the guide rod scale. If the 10 mm spacer was used it should reach the **„10“ mark** on the scale (Fig. 15).

Once the trial neck segment is in position the guide rod and go/no-go guide are removed. Depending on which trial spacers are being used a 38 mm trial screw (no trial spacer or a 10 mm spacer) or a 58 mm trial screw (20 mm spacer or a 20 mm spacer in conjunction with a 10 mm spacer) is screwed into the stem through the neck segment and tightened with a screwdriver in the correct anteversion (Fig. 16).

A coloured trial head (P) is seated on the trial neck segment. Now the hip can be reduced. The following are then checked (Fig. 17):

- **Joint stability**
- **Range of motion**
- **Impingement**



■ Surgical Technique

■ Leg Length and Lateralization

Leg length can be corrected by 10 mm, 20 mm, or 30 mm (i.e. 10+20 mm) by using trial spacers (Fig.18+19).

Leg length and stem lateralization can be “fine-tuned” by selecting:

- Trial neck segments with a CCD angle of 126° or 135° CCD (Fig.19) in standard neck length or neck length XXL (Fig. 20) or
- Trial heads of different head-neck lengths (Fig. 21)

■ Anteversion

The anteversion can be adjusted by loosening the fixation screw and repositioning the trial neck segment.

Note!

When trial spacers are used, a long trial neck segment is required.

Short trial neck segments must not be used in conjunction with trial spacers. (Fig. 19)

This position should then be marked on the bone so that it can be reproduced with the definitive neck segment.

■ Trial Fixation Screws

Note!

A 38 mm trial fixation screw must be selected if no trial spacer or a 10 mm trial spacer is being used.

A 58 mm screw is required if a 20 mm trial spacer or a combination of 20 mm and 10 mm trial spacers is being used.

■ Using a longer Trial Neck Segment

Additional reaming may be required if a 35 mm trial neck segment was planned but then exchanged for a 65 mm trial neck segment.

Once leg length, anteversion and joint stability have been assessed, the trial components are removed.

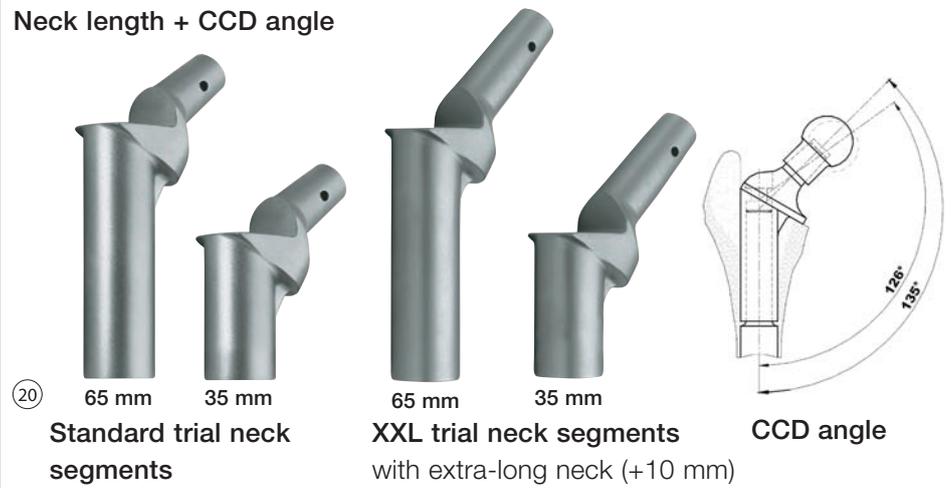


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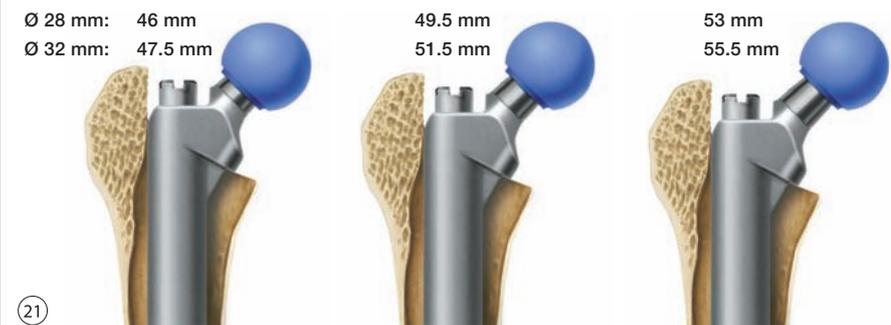
Fixation screw (Trial + Implant)
Spacers (Trial + Implant)



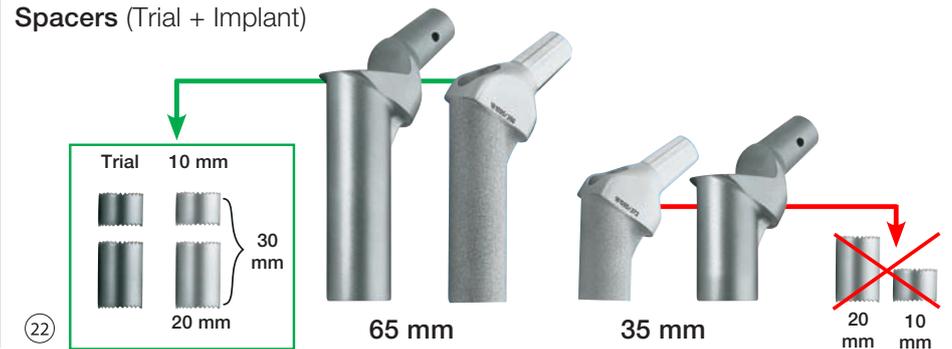
Trial neck segments:
Neck length + CCD angle



Trial neck segments/trial heads: head-neck lengths



Neck segments (Trial + Implant)
Spacers (Trial + Implant)



■ Final Assembly

Seating of Trial Neck Segment

The guide rod (G) is once again screwed to the stem (Fig. 23).

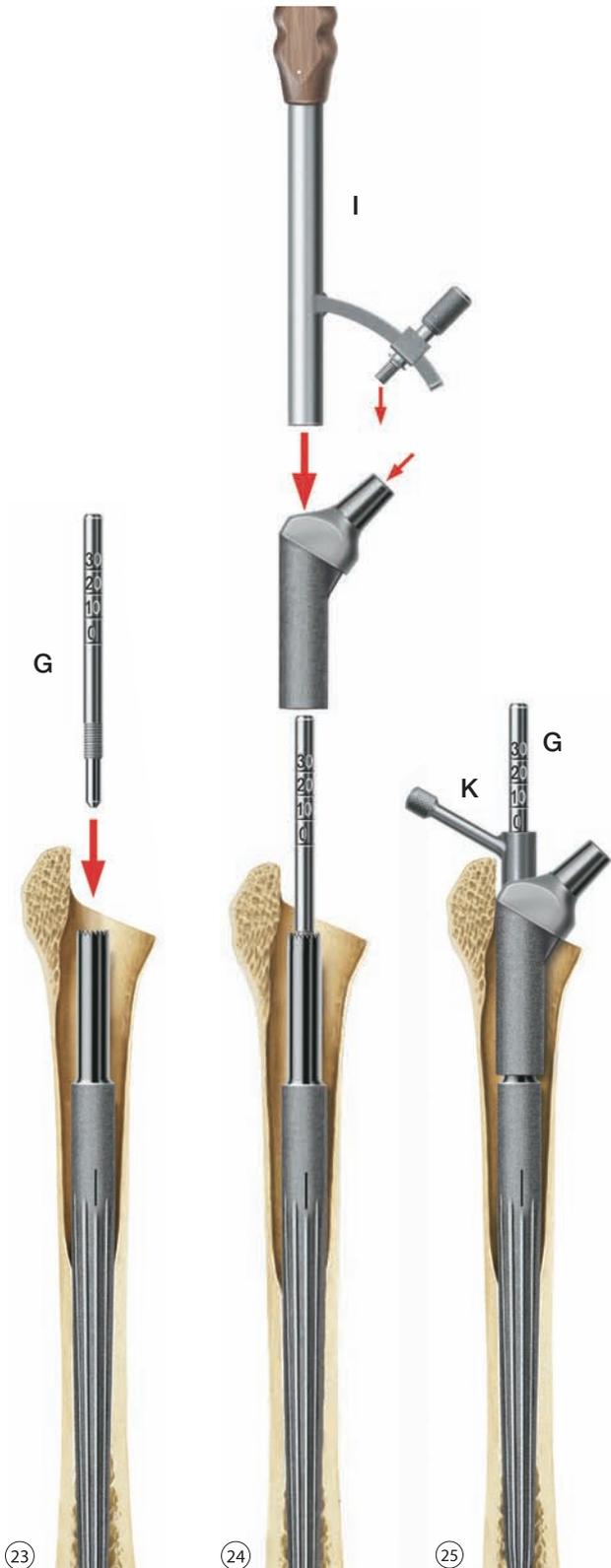
The neck segment and spacers (if needed) are placed over the **guide rod** (G) and onto the stem using the **insertor** (I). The mark made on the bone during the trial run ensures alignment of the neck segment in the correct anteversion (Fig. 24).

Note!

If spacers are being used a 65 mm neck segment is required. The 35 mm neck segment may only be used without spacers.

It is imperative that the teeth of the upper part of the stem interlock with the teeth of the spacers or (in the absence of spacers) the neck segment. This can easily be checked by gently turning the neck segment attached to the insertor to and fro. There should be no bone particles or soft tissue caught in the connection.

To check that the seating is perfect, the **go/no-go guide** (K) is slid over the **guide rod** (G) and onto the neck segment. When no spacers have been used the connection is secure if the calibration mark "0" on the guide rod is visible. When a 10 mm or 20 mm spacer has been used, or a 10 mm combined with a 20 mm spacer, the marks "10", "20" and "30" respectively should be visible (Fig. 25).



Expansion Bolts

The stem, any spacers and the neck segment are connected with either a 41 mm or 61 mm expansion bolt (M), depending on the neck segment length and the number of spacers (Fig. 26). The expansion bolts securely fix the MP® neck segments to the modular MP® stems.

Note!
LINK® implants and expansion bolts are solely designed for single use. They cannot be reused. The torque wrench is supplied with a calibration certificate. The torque wrench must be sent to WALDEMAR LINK GmbH & Co. KG for testing after 250 applications.

The torque wrench must never be used to undo screw connections, since this could damage it. Plastic-sleeve integrity must be checked prior to use.

Warning:

Two bolt lengths are available: 41 and 61 mm

- The 41 mm bolt is used if no spacer or one 10 mm spacer is used.
- The 61 mm bolt is used if one 20 mm spacer is used or a 10 mm spacer is used in conjunction with a 20 mm spacer (overall height: 30 mm)



Using the screwdriver (L), the expansion bolt is screwed in as far as it will go and lightly tightened (Fig. 26). Then the holder (O) with plastic sleeve (N) is attached to the taper of the neck segment and fastened by operating the lever (R).

Using the torque wrench (P) the inserted expansion bolt is tightened as far as short mark 1 on the scale. While tightening, it is important to keep a firm grip on both the holder and the torque wrench to ensure that the neck segment remains in situ without rotation. Tightening the expansion bolt as far as short mark 1 on the scale corresponds to a tightening torque of 14.5 to 16.3 Nm. The resulting elastic expansion of the bolt effectively fastens the connection.

The **trial head** (Q) is placed on the taper of the neck segment and a final trial reduction is performed to check anteversion (Fig. 27).

Femoral heads are available in CoCrMo alloy or aluminum oxide ceramic. They have an internal taper of 12/14 mm and can be combined with the 12/14 mm taper of the MP® neck segments. The different head-neck lengths of the available femoral heads affect both leg length and lateralization.

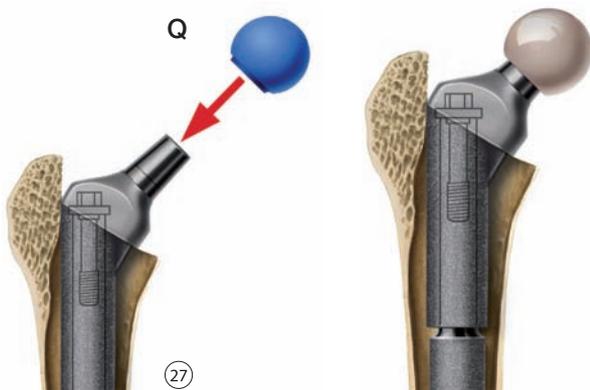
LINK® femoral heads are available in diameters of 28 mm, 32 mm and 36 mm. Other diameters, such as 22 mm and 26 mm, are available on request.

Instrumentation and trial prostheses are supplied in specially assembled trays. They facilitate a precise

■ Surgical Technique

surgical technique for optimal fixation, leg length and version adjustment.

- **Reamers** to prepare the femoral canal – which are 2 mm smaller in diameter than the respective MP® stem (external diameter) – are provided for each MP® stem length. Reamers are color-coded by length and the diameter is clearly marked for easy identification.
- The **stem inserter** helps ensure optimal positioning of the stem and alignment of the 3-degree angle of the stem with the curvature of the femur.
- **Trial neck segments, spacers, fixation screws and prosthesis heads** are provided to determine optimal leg length, lateralization and version.
- The **go/no-go guide** ensures full seating of the neck segment on the implanted stem (including any spacers).
- If necessary, the stem can be removed with the special **extraction tool**.



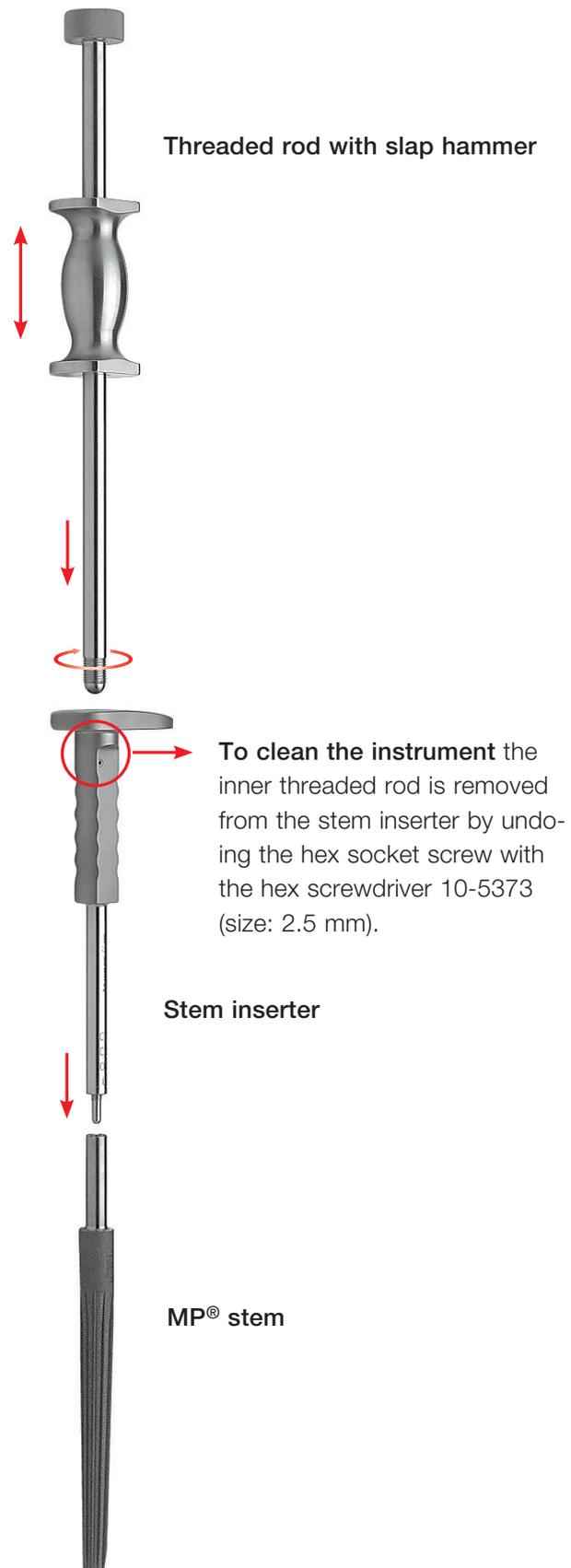
Placing of Prosthesis Head

The taper of the neck segment is cleaned and a CoCrMo or aluminum oxide ceramic prosthesis head is placed on the taper and secured with a light tap on the driver.

■ Stem Removal

If the MP® stem needs to be removed intraoperatively or for revision, the **stem inserter** is mounted on the **stem in situ** and connected to the **threaded rod with slaphammer**.

The MP® stem can be safely driven out of the medullary canal by striking the upper stop with the slaphammer using measured blows.



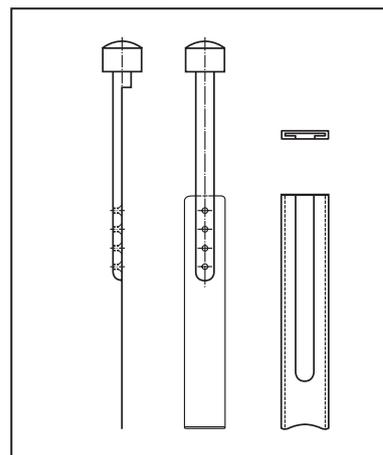
■ **Additional Instruments**

(not included in instrument set)



Guided Osteotome, 250 mm

Item No.	Width mm	Effective length mm
65-1700/20	20	65
65-1700/25	25	65



■ **Accessories**

X-ray templates for MP® Reconstruction Prostheses
110 % of actual size, taper 12/14 mm, set of 7 sheets

(X-ray templates 120 % of actual size available on request)

Item No.	CCD angle	Head Ø mm	Neck length	For stem length mm	Set
175-870/02	126°	32	short (S)	160	7 sheets
175-870/05	135°	32	short (S)	160	7 sheets
175-870/08	126°	32	medium (M)	180	7 sheets
175-870/11	135°	32	medium (M)	180	7 sheets
175-870/14	126°	32	long (L)	210 - 330	7 sheets
175-870/17	135°	32	long (L)	210 - 330	7 sheets

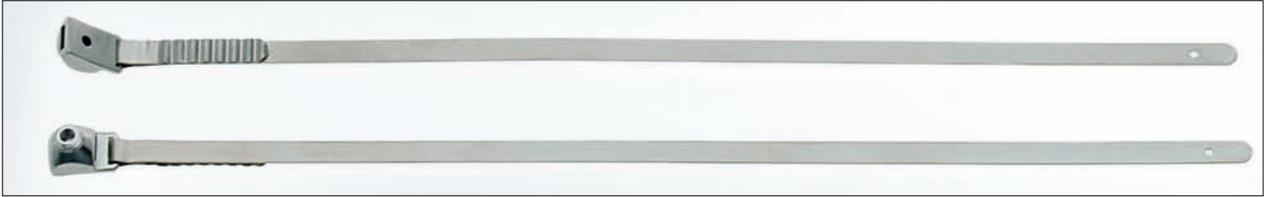
■ **Instructions for Cleaning and Maintenance**

Specific instructions for instruments are available on request from costumer@linkhh.de.

■ Accessories

63-4300/02 Titanium Cerclage Band with Lock

Material: Titanium, 5.8 mm wide, 240 mm



The Thabe titanium cerclage band offers an effective and manageable way of treating all kinds of fracture of the femur. Compared to wire cerclage systems, the wide contact surface of the band distributes compression forces evenly over a wide area and prevents the band from cutting into the bone. The corrugated portion of the cerclage band preserves the periosteal blood supply which is important for the revitalization of fracture fragments and bone grafts. Titanium is biocompatible allowing the cerclage band to be left in situ for longer.

Indications

- Post-traumatic fractures of the femur
- Bone fixation after trochanteric osteotomies
- Shaft fractures in primary or revision total hip arthroplasty
- Fixation of bone grafts

Osteosynthesis instrument set for Thabe titanium cerclage band

63-4300/05

Instrument set for Thabe cerclage, complete

consisting of: Qty.

05-1000/01

K1 small container, 460 x 190 x 92 mm 1

63-4300/11

Tray, empty, 415 x 175 x 35 mm 1

63-4300/19

Cerclage band guide
Inner radius 40 mm, 290 mm 1

63-4300/20

Cerclage band guide
Inner radius 50 mm, 300 mm 1

63-4300/40

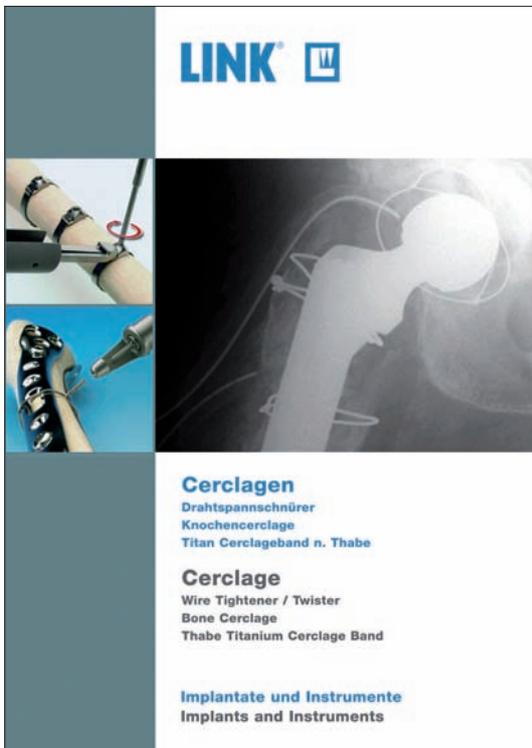
Cerclage band tightener 1

175-600

Hex screwdriver, hex 3.0 mm, 230 mm 1

64-4300/30

Band tightener pliers, with tooth, 170 mm 1



More information on the use of the cerclage band is available on request.

■ Megasystem-C® Tumor Replacement Surgery

The **MEGASYSTEM-C®** for tumour surgery was developed in collaboration with Prof. Dr. Capanna of the Centro Traumatologico Ortopedico in Florence.

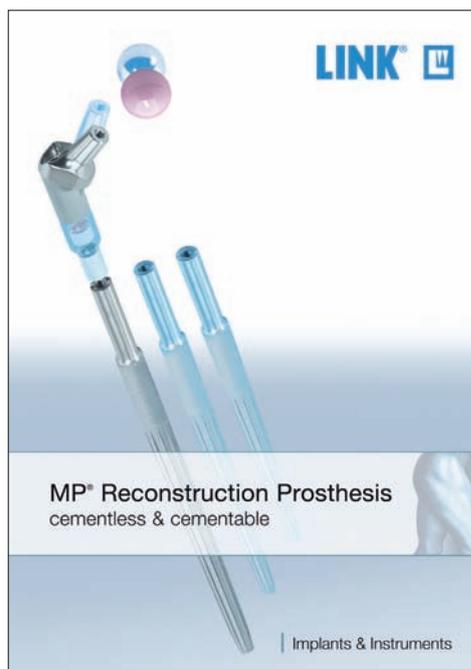
With its high degree of modularity, the system facilitates both partial replacement of proximal and distal femoral bone and total replacement of the femur. For knee arthroplasty, **Endo-Model® SL®** implants are used in combination with in the **MEGASYSTEM-C®**. Modularity gives the surgeon the flexibility to address any intraoperative situations that arise.

The system respects biomechanical load and anchoring principles and uses tried and trusted implant components. This gives maximum reliability and ensure excellent prospects for a successful surgical outcome.

- Maximum intraoperative flexibility thanks to highly modular implant components without the expense of a true custom-made implant
- Fully integrated system thanks to compatibility with standard implant systems such as the **MP®** Hip Revision System and **Endo-Model®** knee components
- Knee components based on long-term clinical experience with the successful **Endo-Model®** knee implants
- Long-established and clinically proven coupling mechanisms
- Cementable and cementless stems
- Intraoperative length adjustment in 10 mm increments



Catalogue **MEGASYSTEM-C®**
 Implants und Instruments
 Order number:
 909_Mega-C_Impl. Instr._en_2011-02_003



Catalogue **MP®** Reconstruction Prosthesis
 Implants und Instruments
 Order number:
 664_MP_Impl. Instr._en_2011-02/002

■ Medical Reprints, available on request:

Ph. Lubinus, W. Klauser *

The Revision Femur: A Potpourri of Options, A Modular Option for Proximal Bone Loss, Orthopaedics, Vol. 23 No. 9, Sept. 2000 [\(H112\)](#)

A. Seth Greenwald, Paul D. Postak

The Influence of Modularity on the Endurance Performance of the LINK® MP™ Hip Stem, Orthopaedic Research Laboratories, Cleveland, Ohio, Feb. 2001 [\(H114\)](#)

F. Bellomo, L. Bertignone, L. Morino, P. Milano, E. Schiavone, M. Barale

LINK® MP™ cementless distal fixation modular prosthesis for revision total hip arthroplasty, J Orthopaed Traumatol (2002) 2:121-124 ©Springer Verlag 2002 [\(H118\)](#)

Daniel J. Berry, MD

Femoral Revision, Distal Fixation With Fluted, Tapered Grit-Blasted Stems
The Journal of Arthroplasty, Vol. 17 No. 4 Suppl 1, June 2002 [\(H121\)](#)

Louis M. Kwong, MD, A. John Miller, MD, and Philipp Lubinus, MD

A Modular Distal Fixation Option for Proximal Bone Loss in Revision Total Hip Arthroplasty, A 2- to 6- Year Follow-up Study,
The Journal of Arthroplasty Vol.18 No. 3 Suppl.1 March 2003 [\(H122\)](#)

Daniel J. Berry, MD

Treatment of Vancouver B3 Periprosthetic Femur Fractures With a Fluted Tapered Stem,
Clinical Orthopaedics, No. 417, December 2003, pp. 224-231 [\(H128\)](#)

Stephen M. Murphy, MD, and Jose Rodriguez, MD

Revision Total Hip Arthroplasty With Proximal Bone Loss,
The Journal of Arthroplasty Vol.19 No. 4 Suppl 1 June 2004 [\(H133\)](#)

W. Klauser, P. Lubinus

MP-Rekonstruktionsprothese (LINK®), Modulare Revisionsendoprothetik des Hüftgelenks,
Reprint from Thümler & Forst (eds.), pp. 264-270, Springer-Verlag Berlin Heidelberg, 2004 [\(H130\)](#)

Scott M. Sporer, MD, MS; Wayne G. Paprovsky, MD, FACS

Femoral Fixation in the Face of Considerable Bone Loss,
Clinical Orthopaedics, No. 429, pp 227-231, 2004

Clinical Cases with the LINK® MP® Hip System

Order No.: 664So/4.99L

	Products	
	MP® Reconstruction Prosthesis	Megastem-C®
General Indications		
Mobility-limiting diseases, fractures or defects of the hip joint and the proximal femur which cannot be treated by conservative or osteosynthetic procedures	X	
Mobility-limiting diseases, fractures or defects of the hip joint, the proximal and distal femur through the proximal tibia which cannot be treated by conservative or osteosynthetic procedures		X
Indications		
Revision arthroplasty due to juxta-articular bone defects	X	X
Revision of loosened femoral prosthesis components involving extensive bone resorption of the proximal femur and widening of the medullary cavity or marked thinning of proximal femoral cortical bone	X	X
Revision of loosened femoral prosthesis components by peri-/subprosthetic fracture	X	X
Deformed proximal femur due to fractures or osteotomies	X	X
Correction of bone deficiencies, e.g. due to tumors	X	X
Large post-revision and post-trauma segmental bone defects	X	X
Oncological and revision surgery from tibial to hip area (in conjunction with Endo-Model® SL® Rotational and Hinge Knee Prostheses)		X
Contraindications		
Acute or chronic infections, local and systemic	X	X
Allergies due to (implant) materials	X	X
Revision in septic environment	X	X
For preparation of the prosthesis bearing insufficient length of intact diaphysis (less than 80 mm)	X	X
Distinctive muscular, nerve, vascular or other diseases which put the affected limb at risk	X	X
Insufficient bone integrity which prevents a stable anchorage of the prosthesis	X	X
Relative Contraindications		
Adiposity	X	X
Lacking or foreseeable not assured compliance	X	X
Foreseeable overload/overstressing of joint prosthesis	X	X

Please note:

These indications/contraindications refer to standard cases. The ultimate decision on whether or not an implant is suitable for a patient must be made by the surgeon based on his/her individual analysis and his/her experience.

■ Important Information

Please note the following regarding the use of our implants:

1. Choosing the right implant is extremely important.

The size and shape of the human bone determine the size and shape of the implant and also limit the load capacity. Implants are not designed to withstand unlimited physical stress. Demands should not exceed normal functional loads.

2. Correct handling of the implant is exceedingly important.

Under no circumstances should the shape of a finished implant be altered, as this shortens its life span. Our implants must not be combined with implants from other manufacturers.

The instruments indicated in the Surgical Technique must be used to ensure safe implantation of the components.

3. Implants must not be reused.

Implants are supplied sterile and are intended for single use only. Used implants must not be reused.

4. After-treatment is also very important.

The patient must be informed of the limitations of the implant. The load capacity of an implant cannot compare with that of healthy bone!

5. Unless otherwise indicated, implants are supplied in sterile packaging.

Note the following conditions for storage of packaged implants:

- Avoid extreme or sudden changes in temperature.
- Sterile implants in their original, intact protective packaging may be stored in permanent buildings up until the "Use by" date indicated on the packaging. They must not be exposed to frost, dampness or direct sunlight, or mechanical damage.
- Implants may be stored in their original packaging for up to 5 years after the date of manufacture. The "Use by" date is indicated on the product label.
- Do not use an implant if the packaging is damaged.

6. Traceability is important.

Please use the documentation stickers provided to ensure traceability.

7. Further information on the material composition is available on request from the manufacturer.

Follow the instructions for use!

WALDEMAR LINK GmbH & Co. KG, Hamburg

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The Surgical Technique described has been written to the best of our knowledge and belief, but it does not relieve the surgeon of his/her responsibility to duly consider the particularities of each individual case.

Unless otherwise indicated, all instruments are made of surgical stainless steel.



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